NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
FACT SHEET

(pursuant to NAC 445A.236)

Permittee Name: Sierra Chemical Co.
2302 Larkin Circle
Sparks, NV 89431

Permit Number: NEV92036

Location: Kean Canyon Facility, Washoe County
1.4 miles north of Mustang Interchange (U.S. I-80 Exit #23)

Latitude: 39° 32' 27"N, Longitude: 119° 37' 51"W
Township 19N, Range 21E, Section 4

Drinking Water Protection Area / Wellhead Protection Area

The Sierra Chemical Company Kean Canyon Facility is not within a 6000' Drinking Water Protection Area (DWPA) or within an established Wellhead Protection Area (WHPA).

General:

Sierra Chemical Co. operates a chemical distribution facility in Sparks, Washoe County, Nevada. The Sparks facility receives bulk chemicals via rail and truck and then repackages the products in smaller containers. The company's product line has applications in the water treatment industry such as chlorine products (e.g., liquid bleach and chlorine gas for disinfection). Empty shipping containers (e.g., plastic storage tanks, depressurized cylinders, etc.) are rinsed in the secondary containment area before being refilled. Wastewater is generated in the secondary containment area, located outdoors, through the collection of diluted product, rinse water, and stormwater capture. Chemicals contained in the dilute product and wastewater streams include sodium hydroxide (NaOH), hydrochloric acid (HCl), sulfuric acid (H_2SO_4), and sodium bisulfite ($NaHSO_3$). The wastewater is collected in a concrete sump, and is then pumped to a 1,100-gallon plastic storage tank for sampling and chemical neutralization. Chemical neutralization results in fluid with elevated Total Dissolved Solids (TDS) levels. The neutralized water is filtered to remove sediment and pumped to a 3,500- gallon water truck. When full, the truck is transported to the site of its former Kean Canyon production facility near Mustang.

The facility applies the neutralized water for dust control purposes at its Kean Canyon Facility, which is located 1.4 miles north of the U.S. I-80 Mustang Interchange in Washoe County. A portion of this site is leased to Frehner Construction for use as an aggregate pit. Sierra Chemical Co. formerly used the Kean Canyon Facility as a processing facility for the manufacture of explosive compounds until 1998, when the facility was devastated by a series of explosions. All that remains today is the aggregate pit operations and an equipment storage yard. No process chemicals are stored or handled at this site.

Effluent Flow and Characteristics

Beginning in 2003, Sierra Chemical Company made modifications to their operation resulting in greatly decreased volumes of wastewater. While the volume decreased, the TDS of the generated fluid increased. For this reason, the company requested, and was granted, a modification to the

permit specifying permit limits in pounds of particular solutes per day (lbs/day). During the period from February 2004 through February 2007, the wastewater generated and applied to the Kean Canyon site had the following characteristics:

Discharge Monitoring Report Data
February 2004 – February 2007

Parameter (In lbs/day unless specified)	Permit Limit	Average	Maximum	Minimum
Flow (Gallons/Day)				
30-Day Average	360	102.2	198	33
Daily Maximum	450	117.7	353	33
Total Organic Carbon				
30-Day Average	0.57	0.057	0.164	0.011
Daily Maximum	0.75	0.109	0.380	0.013
Total Dissolved Solids				
30-Day Average	180	25	44.6	6.5
Daily Maximum	281	37	96	8.3
Nitrate as N				
30-Day Average	0.06	0.025	0.060	0.011
Daily Maximum	0.09	0.056	0.190	0.014
Sulfate				
30-Day Average	57	11.7	25.2	2.4
Daily Maximum	89	21.6	58.3	6.3
Chloride				
30-Day Average	51	5.0	19.5	0.7
Daily Maximum	80	12.1	41.9	0.8
pH (Standard Units)	6.5 to 8.5	7.15	8.30	4.95
Total Petroleum Hydrocarbons				
30-Day Average	0.003	Non-Detect	0.0002	Non-Detect
Daily Maximum	0.004			

Receiving Water Characteristics:
According to the facility's documentation, depth to groundwater at the dust control site is 630 ft. below ground surface. Wastewater is applied only for dust control purposes, and is applied in such a manner that most fluid is lost to evaporation. Infiltration to the aquifer from road dust spray is not anticipated. The company's water truck is used at the site approximately every other week, and application rate is limited to a maximum of 450 gallons/day.

Proposed Effluent Limitations and Special Conditions:
Sierra Chemical Company Kean Canyon Facility discharge limitations and monitoring requirements are proposed as the following:

Table 1: Discharge Limitations

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30-Day Average	Daily Maximum	Measurement Frequency	Sample Type
Flow, gallons/day (accumulation rate)	360	450	Weekly	Volumetric
TOC, lbs./day[1]	0.39	0.50	Quarterly	Composite[2]
TDS, lbs./day	121	188	Quarterly	Composite[2]
Nitrate-N, lbs./day	0.04	0.07	Quarterly	Composite[2]
Sulfate-SO_4, lbs./day	38	60	Quarterly	Composite[2]
Chloride-Cl, lbs./day	34	54	Quarterly	Composite[2]
Total Nitrogen, mg/l	Monitor & Report		Quarterly	Composite[2]
pH, Std. Units	Between 6.5 and 8.5		Quarterly	Discrete
TPH, mg/l (EPA modified 8015 method)	Monitor & Report	1.0	Annually[3]	Discrete

1. If sample TOC is greater than allowable limit, then an analysis for GC/MS volatile, acid, base/neutral and pesticide compounds must be conducted and reported as part of the quarterly DMR submission (see Attachment A).
2. A composite sample shall consist of equal volumes of water withdrawn from each tanker truck load.
3. Sampled & reported in 4th quarter.

Schedule of Compliance: The Permittee shall submit the following items to the Division for review and approval:

- **By January 1, 2008,** the Permittee shall submit to the Division a revised Operations & Maintenance (O&M) Manual for the wastewater collection, treatment, and application activities located at the Sierra Chemical Sparks and Kean Canyon Facilities.

Rationale for Permit Requirements:
The proposed monitoring conditions outlined in Table 1 below are implemented to ensure that the accumulated wastewater is properly neutralized, resulting in a product of water and dissolved salts, suitable for use as a dust palliative. Application rates in pounds per day are based on typical dust palliatives, with a maximum TDS level of approximately 50,000 mg/l.

Procedures for Public Comment:
The Notice of the Division's intent to issue (renew) a permit authorizing the facility to dispose of treated water as a dust suppressant, subject to the conditions contained within the permit is being sent to the **Reno Gazette-Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of publication of the public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. The deadline date and

time by which all written comments are to be postmarked (via mail) or transmitted to the Division via fax or e-mail is **October 11, 2007 by 5:00 P.M.**

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination:
The Division has made the tentative determination to issue (renew) the proposed discharge permit for a period of five (5) years.

Prepared by: Janine O. Hartley
Staff Engineer II
Bureau of Water Pollution Control
July 2007

Attachment A: Priority Pollutants

Base Neutral Extractables	**Acid Extractables**	**Pesticides**
Acenaphthene	2,4,6-Trichlorophenol	Aldrin
Benzidine	4-Chloro-3-methylphenol	Dieldrin
1,2,4-Trichlorobenzene	2-Chlorophenol	Chlordane (Technical)
Hexachlorobenzene	2,4-Dichlorophenol	4,4'-DDT
Hexachloroethane	2,4-Dimethylphenol	4,4'-DDE
Bis(2-chloroethyl) ether	2-Nitrophenol	4,4'-DDD
2-Chloronaphthalene	4-Nitrophenol	Endosulfan I
1,2-Dichlorobenzene	2,4-Dinitrophenol	Endosulfan II
1,3-Dichlorobenzene	2-Methyl-4,6-dinitrophenol	Endosulfan sulfate
1,4-Dichlorobenzene	Pentachlorophenol	Endrin
3,3'-Dichlorobenzidine	Pentachlorophenol	Endrin aldehyde
2,4-Dinitrotoluene	Phenol	Heptachlor
2,6-Dinitrotoluene		Heptachlor epoxide
1,2-Diphenylhydrazine	**Volatile Organics**	Alpha-BHC
Fluoranthene	Acrolein	Beta-BHC
4-Chlorophenyl phenyl ether	Acrylonitrile	Gamma-BHC (Lindane)
4-Bromophenyl phenyl ether	Benzene	Delta-BHC
Bis(2-Chloroisopropyl) ether	Carbon tetrachloride	PCB 1016
Bis(2-Chloroethoxy) methane	Chlorobenzene	PCB 1221
Hexachlorobutadiene	1,2-Dichloroethane	PCB 1232
Hexachlorocyclopentadiene	1,1,1-Trichloroethane	PCB 1242
Isophorone	1,1-Dichloroethane	PCB 1248
Naphthalene	1,1,2-Trichloroethane	PCB 1254
Nitrobenzene	1,1,2,2-Tetrachloroethane	PCB 1260
N-Nitrosodimethylamine	Chloroethane	Toxaphene
N-Nitrosodiphenylamine	2-Chloroethylvinylether	
N-Nitrosodi-n-propylamine	Chloroform	**Dioxins**
Bis(2-ethylhexyl) phthalate	1,1-Dichloroethene	TCDD
n-Butyl benzyl phthalate	Trans-1,2-Dichloroethene	
Di-n-butyl phthalate	1,2-Dichloropropane	**Metals**
Di-n-octyl phthalate	1,3-Dichloropropane	Antimony
Diethyl phthalate	Ethylbenzene	Arsenic
Dimethyl phthalate	Dichloromethane	Beryllium
Benzo(a)anthracene	Chloromethane	Cadmium
Benzo(a)pyrene	Bromomethane	Chromium
Benzo(b)fluoranthene	Bromoform	Copper
Benzo(k)fluoranthene	Bromodichloromethane	Lead
Chrysene	Dibromochloromethane	Mercury
Acenaphthylene	Tetrachloroethene	Nickel
Antracene	Toluene	Selenium
Benzo(g,h,i)perylene	Trichloroethene	Silver
Fluorene	Vinyl chloride	Thallium
Phenanthrene		Zinc
Dibenzo(a,h)anthracene		
Indeno(1,2,3-cd)pyrene		**Other**
Pyrene		Cyanide
		Asbestos

Detection limits shall be at or below the numerical water quality standards at NAC 445A.144.